

# Focus and Tune in Discourse

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We use data involving two distinct *tunes* to argue that received notions to analyse information structure (IS), e.g. givenness, alternative semantics, or question-under-discussion (Schwarzschild, 1999; Rooth, 1992; Roberts, 2012), are insufficient. Based on the confounding data we propose a discourse model for IS.

The following utterance is, in a fixed context, felicitous with a fall-rise tune, but infelicitous with a falling tune.<sup>1</sup>

- (1) a. A: Does Paula like Bach?  
b. B: She likes Wagner.



audio: <http://jjsch.github.io/audio/wagner-b.m4a>

- (2) a. A: Does Paula like Bach?  
#b. B: She likes Wagner.



audio: <http://jjsch.github.io/audio/wagner-b1.m4a>

According to standard theories of IS (see Ishihara and Féry (2016)), *Wagner* is focal in both tunes. But those same theories are not sensitive to tune, so they cannot explain the difference in felicity.

A desideratum for a theory of IS is the prediction that an utterance can only answer *congruent wh*-questions, i.e. questions obtained by substituting a *wh*-element for the focal constituent. That is, annotating focus by underlining, (3b) should be felicitous, but (3b') should be infelicitous. However, we find felicitous intonations of (3b'), e.g. (4b).

- (3) a. A: Who likes Michael?  
b. B: Nobody likes Michael.  
b.' B: Nobody likes Michael.

- (4) a. A: Who likes Michael?  
b. B: Nobody likes Michael.



audio: <http://jjsch.github.io/audio/nobody-b1.m4a>

Moreover, it has been claimed that focus under negation leads to a pragmatic entailment that in the following examples can be paraphrased as *someone (else) does live in Paris* (Kratzer, 1989; Geurts and van der Sandt, 2004). However, this is only the case for the fall-rise tune (5b), but not for the falling tune (6b').

<sup>1</sup>All judgements reported here have been verified with both expert and non-expert native English speaker informants.

- (5) a. A: Does Paula live in Paris?  
 b. B: Paula does not live in Paris.



audio: <http://jjsch.github.io/audio/paula-pitch2-b.m4a>

- (6) a. A: Does Paula like Bach?  
 b. B: Paula does not live in Paris.



audio: <http://jjsch.github.io/audio/paula-pitch2-b1.m4a>

It seems mistaken to study IS without tune and a rich notion of context. We therefore propose to model focus and tune *jointly* in *discourse*. Briefly, our proposal is as follows:

- The grammar produces a foreground–background pair  $\langle f, \varphi \rangle$ , where  $\varphi$  features a free variable  $x$  of the same semantic type as  $f$ , where  $f$  is the (unique) focal constituent. E.g. for *Paula likes Wagner*  $\varphi$  is  $\llbracket \text{Paula likes} \rrbracket(x)$  and  $f$  is  $\llbracket \text{Wagner} \rrbracket$  such that  $x$  and  $f$  have type  $e$ .
- $\varphi$  is interpreted in context as a presupposition, i.e.  $x$  is either bound or accommodated as  $\exists x$  (van der Sandt, 1992).
- Then, the context is updated with  $(\lambda x.\varphi)(f)$ , such that:
  - if the tune is fall-rise, this attaches with the discourse relation *Contrast*.
  - if the tune is falling, this attaches with the discourse relation *Elaboration*.

In short, this explains the relevant data as follows.

- The implicature of (5b), *someone lives in Paris*, arises from the semantics of the relation *Contrast*, which is absent from (6b).
- In (4), the *wh*-question triggers a presupposition *someone likes Michael*. The background of (4b) triggers the presupposition  $x$  likes *Michael* with  $x$  of type *quantifier*; thus  $x$  can be resolved to *someone*. The *Contrast* is validated as, paraphrased, *you think someone likes Michael, but nobody likes him*.
- However, (3b) with a falling tune is infelicitous (as desired), since the *Elaboration* relation cannot be verified: *you think someone likes Michael. ?? In particular, nobody likes him*.
- Similarly, (1) is felicitous while (2) is not, since *liking Bach* and *liking Wagner* can contrast, but cannot elaborate on one another (see Asher and Lascarides (2003)).

In the talk, I will present additional data and expand this account to cover these more fine-grained distinctions.

## References

- N. Asher and A. Lascarides. *Logics of conversation*. Cambridge University Press, 2003.
- B. Geurts and R. van der Sandt. Interpreting focus. *Theoretical Linguistics*, 30:1–44, 2004.
- S. Ishihara and C. Féry, editors. *The Oxford Handbook of Information Structure*, 2016. Oxford University Press.
- A. Kratzer. An investigation of the lumps of thought. *Linguistics and philosophy*, 12(5): 607–653, 1989.
- C. Roberts. Information structure in discourse: Towards an integrated formal theory of pragmatics. *Semantics and Pragmatics*, 5(6):1–69, 2012.
- M. Rooth. A theory of focus interpretation. *Natural Language Semantics*, 1(1):75–116, 1992.
- R. Schwarzschild. Givenness, avoidf and other constraints on the placement of accent. *Natural language semantics*, 7(2):141–177, 1999.
- R. A. van der Sandt. Presupposition projection as anaphora resolution. *Journal of Semantics*, 9(4):333–377, 1992.